

The logo features a red circle with several concentric yellow circles around it. Yellow arrows radiate from the top of the red circle, and other yellow arrows curve around the bottom of the concentric circles.

ENERGY CENTER OF WISCONSIN

Proposed Methodology for Assessing Achievable Potential for Energy Efficiency and Renewable Energy In Wisconsin

**Comments of the Advisory Committee of the Governor's
Task Force on Energy Efficiency and Renewables**

Summary Prepared by
Energy Center of Wisconsin

12/01/04

(Direct questions or comments to: Susan Stratton, ssratton@ecw.org)

Proposed Methodology for Assessing Achievable Potential for Energy Efficiency and Renewable Energy In Wisconsin

Comments of the Advisory Committee of the Governor's Task Force on Energy Efficiency and Renewables

Process Summary

The Energy Center Staff drafted a proposed study methodology after gathering input from the Advisory Committee on a number of study dimensions including:

- Goals
- Audience
- Definition of energy efficiency and renewable resources to be included
- Type of study best suited to audience and ultimate use
- Budget
- Selection of specific markets
- Need to replicate periodically
- Use of recent data collected by utilities for similar studies
- Possibility of add-on features or options
 - Disaggregate by utility service territory (\$35,000)
 - Incorporate additional markets (\$9,000 each)
 - Additional quantitative screen and ranking of markets (\$3,500)
 - Scenario optimization (\$20,000)
 - Integrate with Fully Integrated Dispatch Organization (FIDO) (\$75,000+)

The draft methodology was sent to the Advisory Committee prior to the November 1, 2004 meeting to discuss and approve the approach. The draft methodology is available on the internet at <http://energytaskforce.wi.gov/docview.asp?docid=75>. At the conclusion of the meeting some issues were resolved, and some remained outstanding. In an attempt to reach consensus on the outstanding issues, the Energy Center sent a set of questions to the Advisory Committee and stakeholders who have indicated an interest in the study with a due date for response of November 9, 2004. (We accepted responses up until November 12). Replies have been received from most of the Advisory Committee and from several stakeholders. The following pages will summarize the conclusions reached at the in person meeting and in the responses to the e-mail survey questions.

November 1, 2004 Advisory Committee Meeting Summary

Meeting Attendees (*Members or representatives of member of the Governor's Energy Task Force Advisory Committee):

Nino Amato, WIEG*
Oscar Bloch, DOA
Phyllis Dubé, We Energies*
George Edgar, WECC*
Jennifer Fagan, WECC
Mimi Goldberg, Kema
Kevin Grabner, ECW
Charley Higley, Citizens' Utility Board*
Ingrid Kelley, ECW
Joe Kramer, Resource Strategies
Larry Krom, L&S Associates
Jim Mapp, DOA
Paul Meier, Meier Engineering Research
Chuck McGinnis, Johnson Controls*

Cindy Mobrey, WECC
Rick Morgan,
Scott Pigg, ECW
Jake Oekle, WPPI
Scott Olson,
Jill Osterholz, Alliant Energy*
Keith Reopelle, SELP*
Ilze Rukis, WPS*
Carol Stemrich, PSC
Susan Stratton, ECW
Michael Vickerman, Renew Wisconsin*
Don Wichert, WECC
Laura Williams, MG&E*
Brian Zelenak, Xcel Energy*

The focus of the meeting was threefold:

- Review methodology and markets
- Discuss options that may be added
- Identify next steps

The Energy Center staff presented a summary of the document that had been sent in advance and answered questions. Staff also presented its analysis of the options that were suggested by the Committee in July. One of the options was the addition of the FIDO model to address time-or-use features of the markets selected. Paul Meier presented his proposal at this meeting.

The discussion focused on questions about the methodology, options, and selection of the markets to be covered by the study. The Energy Center staff answered questions and listened to ideas and concerns about participation rates, adoption curves, fuel prices, avoided costs, integration with supply side and market definitions.

Time did not permit the full discussion of each of the proposed 36 initial markets (15 residential, 15 business and 6 renewable). The comments received prior to the meeting suggested looking at 12 additional markets that may be substituted for markets already included or added to the study. The intent of the study was to include a substantial proportion of the total achievable level of energy efficiency and renewable energy. The Committee discussed the importance of understanding more precisely what percentage of

the total market we believe we will measure with this study. There was also a strong desire to create a quantitative screen to review the new suggested markets and others on the list of potential markets that was distributed with the methodology document.

The outcome of the meeting was the following:

- The Advisory Committee directed the Energy Center to initiate a screening process (at a cost of \$3,500).
- No decisions were made at the meeting on markets or options. The Committee directed that members should have another week to formulate recommendations based on the discussions at the meeting. The Committee asked the Energy Center to solicit input one more time via e-mail on the markets to be included and the options to be included.
- The Energy Center, in response to comments, agreed to build in a “reality check” through its milestone review meeting process on the results for each market near the end of the process so that if there is any information that is missing or misinterpreted, it can be identified and the study results modified if necessary.

Summary of Responses to E-Mail Survey

The e-mail survey was sent to the Advisory Committee members as well as to interested stakeholders. However, it is the Advisory Committee that has been delegated by the Governor’s Task to direct the work of the Energy Center. Therefore Advisory Committee comments will be given greatest weight in this summary. The results are summarized by individual question.

1. Should the total markets covered in the study be capped at 36? While there was small minority that would agree to increase markets, most were in favor of keeping the study scope at its present level. However, due to concerns about the percentage of total achievable potential to be captured by the study, several commenters suggested that the final answer to this be an outcome of the screening process underway. The Public Service Commission representative was concerned only that the study show a “majority of achievable potential and agreed that additional markets may be added in the future if necessary.

Recommendation: Keep total at 36 until conclusion of screen. If screen shows a significant gap, recommend additional markets to Advisory Committee for approval.

2. Should the Energy Center propose up to three additional markets if the screening shows that a market has a strong potential for contributing to the state's Energy Efficiency or renewable potential relative to the selected markets? (Cost is \$9,000 for each market added) There was not a strong sentiment for added markets due to the budget effect. In fact there is some concern that if markets were added the funders may not be granted full cost recovery. Several suggestions were made to add or swap markets. We have cataloged these to add to our screen. A suggestion to add utility scale renewables was rejected as being against the directive from the Task Force.

These are the markets that were suggested for additional consideration:

Sector	Market
Comm & Ind	Sufficient natural gas conservation included in commercial and industrial markets
	C&I lighting at end of service replacement
	C&I lighting retrofit
	VFD/Motors at end of service life
	Lighting at end of service replacement
	Addition (or split-out) of public facilities for each relevant commercial market
	Steam trap maintenance for C&I
Residential	Dehumidifiers early replacement and turn-in
	Homeowner retrofit (example: homeowner purchases insulation for a DIY project)
	Residential Shell program for saving natural gas
	Fuel switching in rental buildings, 5+ units
	Central air conditioning rehabilitation (recharge or tune-up)
	Refrigerator turn-in
	Common area laundry rooms in 5+ units
Renewable	Biomass Gasification
	Customer-sited generation (already included in grid connected renewable technologies)
	Residential PV

These are markets that were suggested for elimination:

Sector	Market
Residential	Rental refrigerator markets (numbers 28 & 30)
	1-4 unit rental remodeling (number 26)
	Residential appliances (number 16)

These are markets that were suggested for combining

Sector	Market
Comm & Ind	New Construction (numbers 1 & 2)
	Lighting and controls retrofit (numbers 5 & 6)

In addition, there were comments requesting more information about what is included in each market.

Recommendation: Keep total at 36 until conclusion of screen. If screen shows a significant gap, recommend additional markets to Advisory Committee. Current and final lists will include more specific information about what is included in each market. Current list is included in the updated methodology document.

3. Should the Energy Center propose to swap up to three markets on the list with those being screened if the screening shows that a market has a strong potential for

contributing to the state's Energy Efficiency or renewable potential relative to the selected markets?

Recommendation: Keep total at 36 until conclusion of screen. If screen shows a significant gap, recommend swaps or additional markets to Advisory Committee. The swap and combinations that we are strongly considering include:

- In place of the three residential markets suggested for elimination we propose to add three residential markets: dehumidifiers; central air conditioning rehabilitation; and shell programs.
- Combine commercial and industrial new construction and replace open slot with VFD Motors at end of service life.

4. Are there any markets, not already on either the current list or the to-be-screened list that you believe must be included regardless of the screen? Responses are included in summary of question 2.

5. Are you in favor of disaggregating the data by utility territory? (Cost is \$35,000) One utility was interested in this and was willing to pay the additional cost. No other party including Public Service Commission was supportive.

Recommendation: Do not make utility specific disaggregation part of the study. Collect data in such a way that this feature can be added at the request of a utility at cost at the conclusion of the study.

6. Do you want the Energy Center to add up to 5 scenario optimizations (with respect to optimization by kW, kWh, or therms)? (Cost is \$20,000) Scenario analysis which is included in the methodology includes anticipation rate sensitivity and program pending options. Response was no with one exception.

Recommendation: Do not include additional scenario analysis as part of the study.

7. Should Paul Meier's FIDO model be added to the project? (Cost is \$75,000+) Response was no from all respondents.

Recommendation: Do not include FIDO in this study. Forward information about FIDO's capabilities to the PSC so that it can consider using the model in the future if it meets a need of the new SEA.

8. Do you have any further concerns or questions about the methodology? Most common responses were about overall budget (both too high and too low) and lack of clarity on definition of markets.

Recommendation: Subsequent market lists will be published with additional information about the market dimensions and definition. The Energy Center is able to study within all 36 markets the originally proposed budget unless additional markets are added.

Other comments to note from the email include:

- Pay close attention to the significant barriers that exist in the renewable markets relative to the energy efficiency markets. (Duly noted and discussed with WREN Board)
- The study should be bid out so that it is independent and so that it can be completed on time. (The Energy Center has the highest standards of independence for its research and was asked to do the predecessor study in 1994. In addition, with the expansion of the Advisory Committee to include a balance more representative of the Governor's Task Force, we believe that the direction and input to the study will be transparent and open to the public. Because work has commenced on the study, it would not be possible to meet the May 2005 timeline if a decision were made to stop the current effort and bid the project out at this time. Since the time of the 1994 study, the Energy Study has completed a substantial amount of research in several of the Wisconsin-specific markets to be targeted for this study. This provides Energy Center with a jump-start on some of the markets to be evaluated.)
- Use achievable potential studies in other states to calibrate the percentage of coverage for our selected markets
- Use old AP documents to calibrate the percentage of coverage for our selected markets
- Participation rates will drive the results of the study
- Some markets may appear to double count potential
- There are concerns of both under- and over-estimation.

These additional comments will assist us in evaluating the final markets and in presenting our findings.

Next Steps

At this time, the Energy Center staff is moving forward to implement a more explicit quantitative screen of the markets that have been identified. We plan to have this screen completed in Mid December and will share the results via email. If these results suggest a change (swap) in markets we will provide a new list of 36 recommended markets with additional information on the market definition along with the specific justification.

Should the recommendation be to expand the number of markets we will schedule a conference call to discuss and decide on a process to resolve the issue.

At this time, the Energy Center is drafting the second part of the MOU for the remainder of the budget (\$400,000 +3,500-\$37,000=\$366,500) for the funders. These MOUs will be sent out in December to be signed and returned to the Energy Center. In the event that markets are ultimately added, we will issue a supplement to the MOU. The allocation for remaining tasks will be done in the same manner as the allocation for funding in Task 1.